State of Utah
JON M. HUNTSMAN, JR.
Governor

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Department of
Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

Brad T Johnson
Director

ERRC-231-08

January 15, 2009

Gwenette R. Christiansen, NPL Coordinator
U.S. EPA, Region 8
1595 Wynkoop Street 8EPR-B
Denver, Colorado 80202-1129

Dear Ms. Christiansen:

Enclosed for your review is the *Preliminary Assessment (PA)* for the **Block 35 Methylene Chloride Plume** (CERCLIS ID# UTN000802657) Site located in Salt Lake City, Utah. The extent of the contamination at this site is not known. Further investigation is recommended to determine the environmental impacts from any current or historical operations at this property or from any nearby properties.

After reviewing the *PA*, please inform us of any comments or changes that need to be incorporated in the final version of the document. Please feel free to contact Kim Viehweg, the Project Manager for this site, at (801) 536-4161 if you have any questions or require additional information.

Sincerely,

Brent H. Everett
CERCLA Branch Manager
Division of Environmental Response and Remediation

BHE/KV/eds

Enclosure(s)

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Mailing Address: P.O. Box 144840 • Salt Lake City, UT 84114-4840
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www.deq.utah.gov

PRELIMINARY ASSESSMENT

For

Block 35 Methylene Chloride Plume
Salt Lake County, Utah
UTN000802657

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Environmental Response and Remediation
Prepared by: Kim Viehweg

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Draft:	Date: 9/22/08	Initials: KV
Revision:	Date:	Initials:
Final:	Date: 01/26/09	Initials: GRC, EPA

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1.0 INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the Superfund Amendments and Reauthorization Act (SARA) of 1986, in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and through a Cooperative Agreement with the U.S. Environmental Protection Agency, Region VIII (EPA), the Utah Department of Environmental Quality (UDEQ), Division of Environmental Response and Remediation (DERR) conducted a Preliminary Assessment (PA) of the **Block 35 Methylene Chloride Plume**, EPA ID# UTN000802657, (referred to as the "Site") in Salt Lake City, Salt Lake County, Utah. The purpose of the PA is to provide information necessary to support a decision regarding the need for further action at the Site under CERCLA or other program authority.

A letter of discovery dated March 27, 2006 was sent to EPA Region VIII regarding this Site. This letter indicated that a methylene chloride groundwater plume was discovered at the Site as part of a leaking underground storage tank (LUST) closure project at Garff Enterprises Inc.

A Preliminary Assessment Worksheet, a CERCLA Eligibility Questionnaire, and an EPA Preliminary Assessment Form are included with this report in Appendices A, B, and C, respectively. A Site visit was performed on August 7, 2008. The Site visit report and accompanying photographs are included as Appendix D.

2.0 OBJECTIVES

The purpose of this PA is to evaluate Site conditions, determine the likelihood of contamination, identify potential exposure pathways, and gather information on the status of the Site. This information will be used to make decisions regarding:

- Past and present site conditions and operations;
- Potential for contaminant migration through air, soil, surface water, and groundwater pathways;
- Potential for exposure and impact to human health from hazardous wastes;
- The need for possible further action due to potential sources of hazardous wastes on-site and off-site; and
- Further consideration under the Comprehensive Environmental Response, Compensation, and Liability Act.

3.0 SITE DESCRIPTION

3.1 Site Location

The Block 35 Methylene Chloride Plume Site is located between 500 and 600 South and between State Street and 200 East in Salt Lake City, Utah (Figure 1). The general address of this site is 531 South State Street, Salt Lake City, Utah. The Site encompasses

one city block and is known as "Block 35". The Jordan River is approximately 1.9 miles to the west. The geographical coordinates for the Site are 40° 45' 27" North Latitude and 111° 53' 13" West Longitude (Appendix E). The Site is located on the southwest quarter of Section 6, Township 1 South, Range 1 East of the Salt Lake Base and Meridian, Salt Lake City South Quadrangle (USGS 1999).

The City of Salt Lake has designated the Site as a D-2, Downtown Support District (Salt Lake City 2008). Automobile dealerships owned by Garff Family, LLC (Salt Lake County Assessor 2008) encompass nearly all of Block 35 (Figure 2). The businesses that make up the Ken Garff Automotive Group on this city block are the Mercedes-Benz Center, Jaguar, Volvo, Mitsubishi, Hyundai, and Saab. Each of these automobile dealerships has a service center. There are also two auto repair businesses not owned by Garff called Safety Brakes and New Era Garage that currently do not appear to be in business. Historically, the Ken Garff Oldsmobile Paint Shop was located at 566 South 200 East (DSHW 2007). This shop was located just south of the historic Honda Sales building that was at the northeast corner of Block 35 (Figures 3 and 4).

3.2 Site History

In 1990, four underground storage tanks (USTs) containing used oil were excavated and removed and seven USTs were upgraded at Garff Enterprises Inc. automobile dealerships and service centers located at Block 35 in Salt Lake City. The tank removal, tank upgrade, soil and water sampling were performed by Reed Peterson Service (RPS) of Salt Lake City, Utah. During the removal of a 4000-gallon used oil UST located near the northeast corner of the property, groundwater was encountered. Two water samples were collected at the excavation site by RPS and a release of gasoline and used oil was identified. A monitoring well (MW-1) was then installed three feet west of the tank removal excavation and was drilled to a depth of 21.5 feet. Soil and water samples were analyzed and identified concentrations of oil and grease, gasoline, benzene, toluene, ethylbenzene, and total xylenes.

In July of 1992, two additional monitoring wells were installed (MW-2 and MW-3). A gasoline station with three USTs was located on the "Honda Sales" area of the property (closed LUST site) in the early 1980s. MW-2 is closest to this area. MW-3 is approximately 265 feet due south of MW-2 (Figure 4).

In February 1997 and again in January 2000, LUST site files show that the DERR requested additional monitoring for chlorinated solvents from this location before site closure could be authorized. Groundwater sampling from MW-1 was performed on March 16, 1999. Analytical laboratory results for chlorinated solvents identified a concentration of 78.6 μg/L of methylene chloride (Appendix F). The maximum contaminant level (MCL) for methylene chloride in drinking water is 5 μg/L (USEPA 2004).

In April 2000, the DERR closed the LUST case after the site had been properly remediated for petroleum products. However, the DERR notified Ken Garff Enterprises

in a letter dated April 28, 2000 that methylene chloride was detected in the groundwater and the case was being referred to the State of Utah, Department of Environmental Quality, Division of Solid and Hazardous Waste (UDEQ/DERR 2000a).

To determine possible source(s) of the plume at the Site, a review of historic businesses in the immediate area that possibly used paints or solvents in their daily operations was performed. Upon review of the Polk Directories, it was found that there were many businesses in the immediate vicinity of Block 35 that may have contributed to the methylene chloride plume (Polk 1968). These businesses are listed below:

516 South 200 East	Royal Tire Center
552 South 200 East	Gudgell Sheet Metal Works
566 South 200 East	National Safety Clinic Auto Repair
567 South 200 East	Western Auto Radiator
575 South 200 East	Larry's Pyramid Service Gas Station
501 South State Street	Ken Garff Oldsmobile Automobile Sales & Service
525 South State Street	Ken Garff Foreign Cars Inc.
532 South State Street	Armature Shop Auto Repair
570 South State Street	Earl Scheib Auto Paint Shop
604 South State Street	Ron's Chevron

In addition, seven paint stores historically occupied the 300 block of State Street during the 1930s to the 1950s. These businesses were located two blocks up gradient of the Site (UDEQ/DERR 1990).

3.3 Previous Regulatory Agency Work

There are five closed LUST sites associated with and located within Block 35. The DERR file numbers that have been assigned to these sites are: Ken Garff Honda site #4000476, Ken Garff Saab site #4000477, Ken Garff Imports site #4000478, Ken Garff Hyundai site #4000479, and Ken Garff Oldsmobile site #4000480.

There are three CERCLIS sites within one mile of the Site; one of these sites is within 0.5 miles of the Site (UDEQ/DERR 2008a). The "Employment Security Administration Excavation" site (#UTD988070496) is 0.45 miles north of the Site in Salt Lake City. This was an excavation site for the Utah Employment Security Administration Building. The excavation was 120 feet by 190 feet. During the excavation, soil contaminated with total petroleum hydrocarbons was discovered in a 3-4 foot band about 14 feet below grade in the southwest portion of the site. Several compounds used in paints, paint manufacturing and resin solvents were also present in the contaminated soils found at the excavation site. The soil contamination and strong odors around the leach pit suggested that contamination of the site may have been due to dumping of paint thinners and solvents into the leach pit by companies that once occupied the site area or leakage of petroleum products from the storage tanks at the site or both (UDEQ/DERR 1990).

The second CERCLIS site is named the "Old Salt Lake City Fire Station" (#UTD988066155) and is 0.71 miles southwest from the Site. A PA completed in August 1989 concluded that sump areas at the Old Salt Lake City Fire Station site contained hazardous materials in potentially toxic concentrations. However, the quantity of hazardous materials in and around the sump areas were insufficient to threaten the groundwater to an extent that immediate cleanup was necessary (UDEQ/DERR 1989).

The third CERCLIS site is known as the "200 South 300 West Plume" (#UT0008969562) and it is 0.85 miles northwest of the Site. This site consists of xylene contaminated soil and perchloroethylene (PCE) contaminated groundwater. Contamination from petroleum products were also detected during a subsurface investigation performed in connection with a UST closure (UDEQ/DERR 2000b).

The locations of the CERCLIS/NPL/UST sites are shown on a map in Appendix G.

4.0 POTENTIAL EXPOSURE PATHWAYS

4.1 Waste/Source Characteristics

Methylene chloride (also known as dichloromethane) is a chlorinated solvent regulated by the State of Utah, Department of Environmental Quality, Division of Solid and Hazardous Waste (DSHW) due to its toxicity to humans and the environment. It is a colorless liquid with a mild, sweet odor. Methylene chloride does not occur naturally in the environment. It is used as an industrial solvent and as a paint stripper. It may also be found in some aerosol and pesticide products and is used in the manufacture of photographic film. It is mainly released to the environment by evaporation. About half of methylene chloride in air disappears in 53 to 127 days. It does not easily dissolve in water. The most likely exposure pathway is by breathing vapors in the air given off by products containing methylene chloride. However, exposure can also occur when contaminated food or water is consumed. It can also be absorbed through skin contact.

Exposure to high levels of methylene chloride is likely if methylene chloride or a product containing it is used in a room with inadequate ventilation. Breathing in large amounts of this contaminant may make a person feel unsteady, dizzy, and have nausea and a tingling or numbness of the fingers and toes. A person breathing smaller amounts of methylene chloride may become less attentive and less accurate in tasks requiring hand-eye coordination. Skin contact with methylene chloride causes burning and redness of the skin. The World Health Organization (WHO) has determined that methylene chloride may cause cancer in humans (ATSDR 2001).

4.2 Groundwater Pathway

4.2.1 Hydrogeologic Setting

Groundwater of the Salt Lake Valley is found in four aquifers located in basin-fill deposits of primarily Quaternary and late Tertiary age (Hely, et al 1971). The groundwater regime is composed of (1) a confined (artesian) aquifer, (2) a shallow

unconfined aquifer overlying the confined aquifer, (3) a deep unconfined aquifer between the confined aquifer and the mountains, and (4) unconfined perched aquifers. All are connected hydraulically to some degree. The confined artesian aquifer and the deep unconfined aquifer together constitute the primary source of most groundwater in Salt Lake Valley, and are also recognized as the principal aquifer (Waddell, et al 1987).

The confined artesian aquifer consists of Quaternary deposits of clay, silt, sand, and gravel. The deep unconfined aquifer consists of deposits of large, well sorted, coarse-grained sands and gravels along with fines, eroded from the Wasatch Range and Oquirrh Mountains. These materials consist of deltaic deposits attributable to primary creeks draining into the Salt Lake Valley (Anderson, et al 1994). Permeability of the principal aquifer, composed of these two aquifers, is relatively high with a yield capable of large volumes of water (URS Consultants, Inc. 1993). Primary recharge to the principal aquifer occurs along the front of the Wasatch Range.

The shallow unconfined aquifer is composed of clay, silt, and fine sand. This aquifer has a permeability that is relatively slow with poor storage capacity, and is only slightly greater than that of the underlying confining bed (Thiros 1995). The shallow aquifer is seldom used for water supply because of the poor chemical quality of the water that it contains and its small yield to wells (Waddell, et al 1987). Direction of groundwater flow in the shallow unconfined aquifer is inward from the outer reaches of the southern and mid-portions of the Salt Lake Valley, with a northerly component toward the Jordan River (Seiler and Waddell 1984).

During a subsurface investigation performed by Westech Environmental of Salt Lake City, it was determined that depth to groundwater in the Site area is approximately 9.5 feet below ground surface (bgs). Groundwater was determined to flow in a slightly west of due south direction (UDEQ/DERR 2000a).

4.2.2 Groundwater Exposure Targets

There are 23 water wells identified in the Utah Department of Environmental Quality/Division of Drinking Water (UDEQ/DDW) database within four miles of the Site. Of these 14 are active and nine are inactive. The wells serve seven public supply systems with a combined population of approximately 85,500 (Table 1). The municipal well closest to the Site, called Eighth South Well, is a noncommunity-nontransient water system (Figure 5). It is located approximately 0.65 miles southeast of the Site and serves a population of approximately 50 (UDEQ/DDW 2008).

Data provided by the Utah Department of Natural Resources/Division of Water Rights (UDNR) indicates that there are existing rights to 4,145 Points of Diversion (PODs). Of the 4,145 PODs, 318 were listed as surface PODs and 3,743 as underground. The uses listed for the 3,743 underground PODs include domestic, municipal, irrigation, power, stock watering, and "other" (UDNR 2008). No contact was made with the owners of these underground PODs. Little is known regarding the current activity of these PODs or

whether they are using the water for drinking water purposes. Appendix H of this report shows the locations of these PODs within a four-mile radius of the Site.

4.2.3 Groundwater Exposure Conclusions

As previously mentioned in Section 3.2 of this report, methylene chloride was detected in groundwater samples taken at the Site in March 1999 at a concentration of 78.6 µg/L. The drinking water standard for methylene chloride is 5 µg/L. There are 14 active water wells within four miles serving a population of approximately 85,500 persons. The nearest municipal drinking water source is approximately 0.65 miles southeast of the Site. In addition, there are numerous ground water and surface water PODs in the area. During the course of this PA investigation, the use of each POD was not determined. The direction of groundwater flow has been determined to flow southwest but the extent of the plume is unknown. Historical data shows that there were many businesses in the vicinity of Block 35 that may have contributed to the plume. Additional data is needed to try and determine the source and extent of the plume and its potential impact to human health and the environment.

4.3 Surface Water Pathway

4.3.1 Hydrologic Setting

The Jordan River is approximately 1.9 miles west and down gradient from the Site. There are several creeks that are over one mile distant and up gradient from the Site. These are City Creek (1.3 miles north), Parleys Creek (2.7 miles southeast), Emigration Creek (2.5 miles southeast), and Red Butte Creek (1.8 miles southeast) (Figure 1). The Site is relatively flat with a slight southwest slope and is located in an arid environment. Any runoff would likely be collected by the city's storm drain system and discharged into the Jordan River. The Jordan River flows north to the Great Salt Lake which is approximately 12.5 miles down gradient from the Site (Appendix I). Additionally, the Site is listed as Zone X on available flood maps and considered to be outside of the 500 year flood plain (FEMA 2008).

4.3.2 Surface Water Exposure Targets

Potential targets for surface water include the 318 surface PODs within a four-mile radius, the Jordan River, wetlands along the river, and various species of animal and plant life. Fish present in the downstream segment of the Jordan River are mainly carp, catfish, walleye, white bass, and occasionally rainbow trout (UDEQ/DERR 1997; Pettengill 1997). The Jordan River has approximately 200 acres of wetlands along its banks. It is home to various species of waterfowl and is used by some as a warm water fishery. Water from the river is used for irrigation and stock watering purposes (UDEQ/DERR 2001).

4.3.3 Surface Water Exposure Conclusions

The surface water pathway is of little concern. The area surrounding the Site is mostly covered with asphalt, pavement, and structures. The Site is relatively flat with the Jordan River being almost two miles west and down gradient from the Site.

4.4 Soil Pathway

4.4.1 Geologic Setting

The site terrain consists mainly of asphalt and concrete parking lots, sidewalks, commercial structures, and thin strips of grassy/vegetated areas. There is also a park-like area across the street to the north with grass and trees surrounding the Salt Lake City and County Buildings. Soil profile information was obtained from the Ken Garff Honda closed LUST site file located in the DERR office. Laboratory analysis of the soil samples collected during tank removal indicate that clayey silt, silty sand, and elastic silt are found at depths between eight (8) and ten (10) feet across the Site. Clays with thinly interbedded units of sand were found near the northeast corner of the Site (UDEQ/DERR 2000a).

4.4.2 Soil Exposure Targets

The Site is located in a commercial/retail area. Based on the projected direction of the methylene chloride plume, office buildings and retail businesses are likely over the plume. The nearest residence is about 0.25-mile east of the Site. In addition, there are three schools that are a mile or less and down gradient from the Site. They are Jefferson School (0.8 miles south-southwest), Lincoln Junior High School (1.0 mile south), and Liberty School (0.8 south-southeast), (USGS 1999).

4.4.3 Soil Exposure Conclusions

Since most of the Site is covered with asphalt, pavement, and structures with some grassy landscaped areas, there is little access to soil that is potentially contaminated with methylene chloride. Therefore, direct exposure from the soil pathway is not likely.

4.5 Air Pathway

4.5.1 Meteorologic Setting

The Salt Lake Valley is characterized as a semi-arid climate. The normal maximum temperature ranges from 37° F in January to 93.7° in July. The normal minimum temperature ranges from 19.7° in January to 61.8° in July. Average annual rainfall for the valley is 15.31 inches per year with a normal monthly high of 2.21 inches in April and a normal monthly low of 0.72 inches in July. Average annual snowfall is 58 inches. The estimated pan evaporation is 83.91 inches per year. Winds are predominantly from the south and southwest with a mean speed of 4 to 5 miles per hour (Brough, et al 1983).

4.5.2 Air Exposure Targets

There are approximately 17,571 residents living within one mile of the Site and 180,639 residents living within four miles of the Site (Appendix J, Table 2, UDEQ/DERR 2008b). Potential targets are the employees of the Garff-owned businesses who work on-site at Block 35 and their customers.

4.5.3 Air Exposure Conclusions

The Site is located in a commercial area that is largely covered with asphalt, concrete, and structures although there is a modest amount of green space that exists within the vicinity used as landscaping and in the park located across the street to the north. However, methylene chloride does not build up in plants or animals. The most likely exposure pathway is by breathing the vapors given off by products containing it. For instance, this might happen in a setting where it is being used as an industrial solvent or paint stripper in a room with inadequate ventilation (ATSDR 2001). Therefore, the possibility of exposure via the air pathway at the Site is remote.

5.0 SUMMARY AND CONCLUSIONS

The Block 35 Methylene Chloride Plume Site (UTN000802657) is located in downtown Salt Lake City between State Street and 200 East and between 500 South and 600 South. Although the Site encompasses an entire city block, the general address designated for this Site is 531 State Street, Salt Lake City, Utah. Salt Lake City has zoned this Site as Downtown Support District and it is surrounded with government buildings, businesses and retail shops. The Garff Family, LLC own several automobile dealerships and service centers on this block. The Ken Garff Automotive Group includes the Mercedes-Benz Center, Jaguar, Volvo, Mitsubishi, Hyundai, and Saab. The area is covered with asphalt, pavement, streets, parking lots, and structures with thin strips of grass used as landscaping. However, the Salt Lake City and County Buildings are located across the street to the north of the Site and there is a greenbelt that surrounds these buildings. The topography of the area is relatively flat with a slight southwest slope. The Jordan River is approximately 1.9 miles west of the Site.

In 1990, several used oil USTs were removed from the Site. Monitoring conducted in connection with the excavation of a 4000 gallon UST identified a release of gasoline and used oil. Three monitoring wells were installed and further groundwater and soil testing was performed at the Site. In March of 1999, analytical results from a groundwater sample taken at MW-1 revealed an elevated concentration of methylene chloride at 78.6 µg/L. The MCL for methylene chloride in drinking water is 5 µg/L. Depth to groundwater is approximately 9.5 feet bgs and groundwater has been determined to flow in a slightly west of due south direction. The nearest municipal well is located approximately 0.65 miles southeast of the Site. There are three schools that are a mile or less and down gradient from the Site.

In order to investigate possible sources for the contaminated groundwater plume, a Site visit and a historical review of the Site were performed. There are several Garff-owned automotive service centers located on Block 35 that may have contributed to the groundwater contamination as these businesses most likely use solvents and aerosols in their daily operations. However, after reviewing historical records, it was determined that there were several businesses surrounding the block that could have contributed to the contaminated groundwater as well. Therefore, the source of the methylene chloride groundwater contamination has not been determined.

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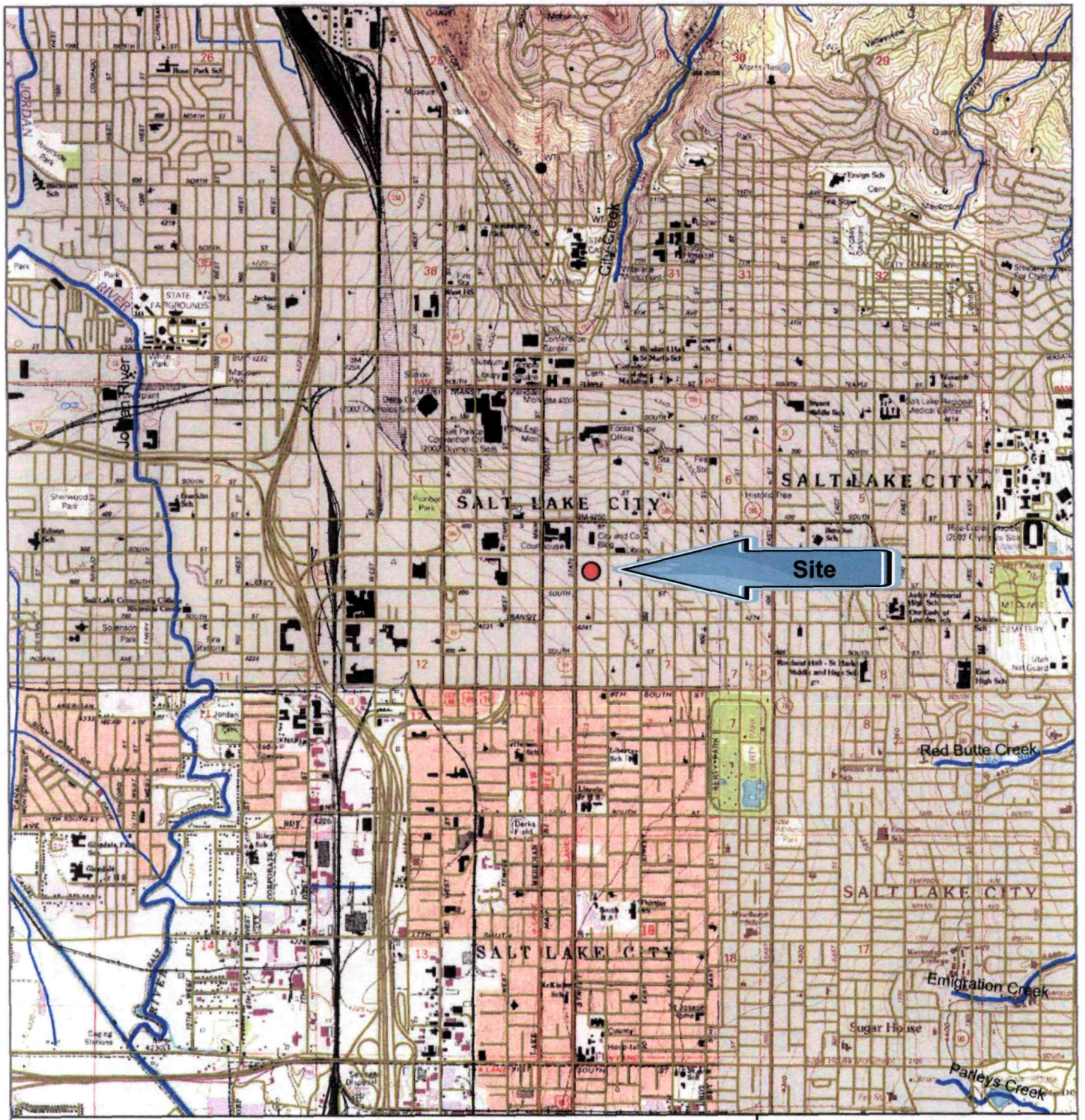
Figures



0 0.5 1 2 3 Miles

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume site
- Major Roads
- Railroads
- Water Courses

N W E S

Figure 1
Site Location

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

Base Map: United States Geological Survey topographic map, 1999

by: Kim Viehweg date: 7/23/08

0 110 220 440 660 880 Feet

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume site

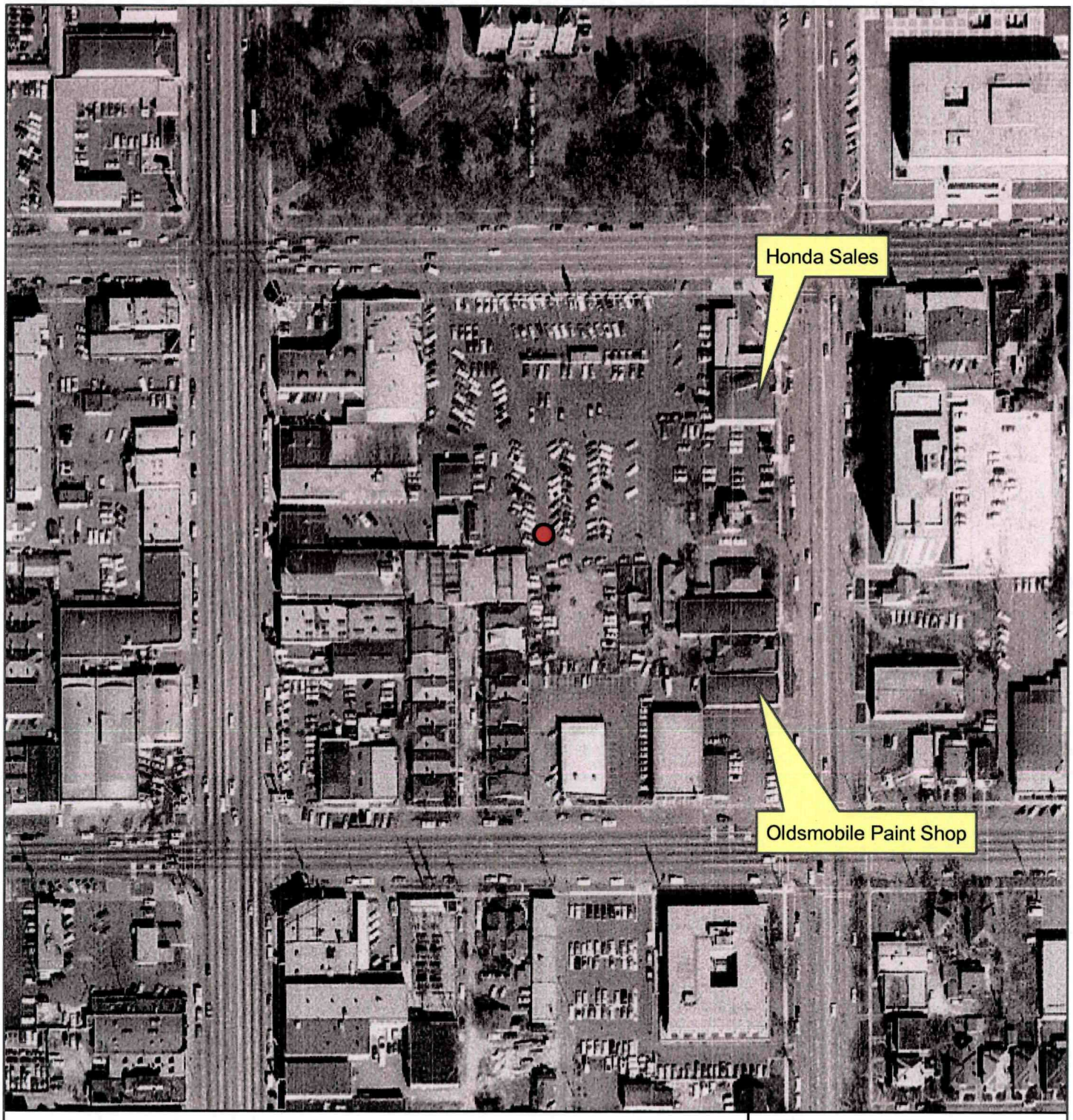
N
W E
S

Aerial photograph obtained from the State of Utah GIS database, 2006

Figure 2
Site Map

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08



0 15 30 60 90 120 Yards

Legend

- Block 35 Methylene Chloride Plume site

N
W E
S

Aerial photograph obtained from Olympus Aerial Surveys Inc.

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Figure 3
Historic Map
March 1, 1968

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

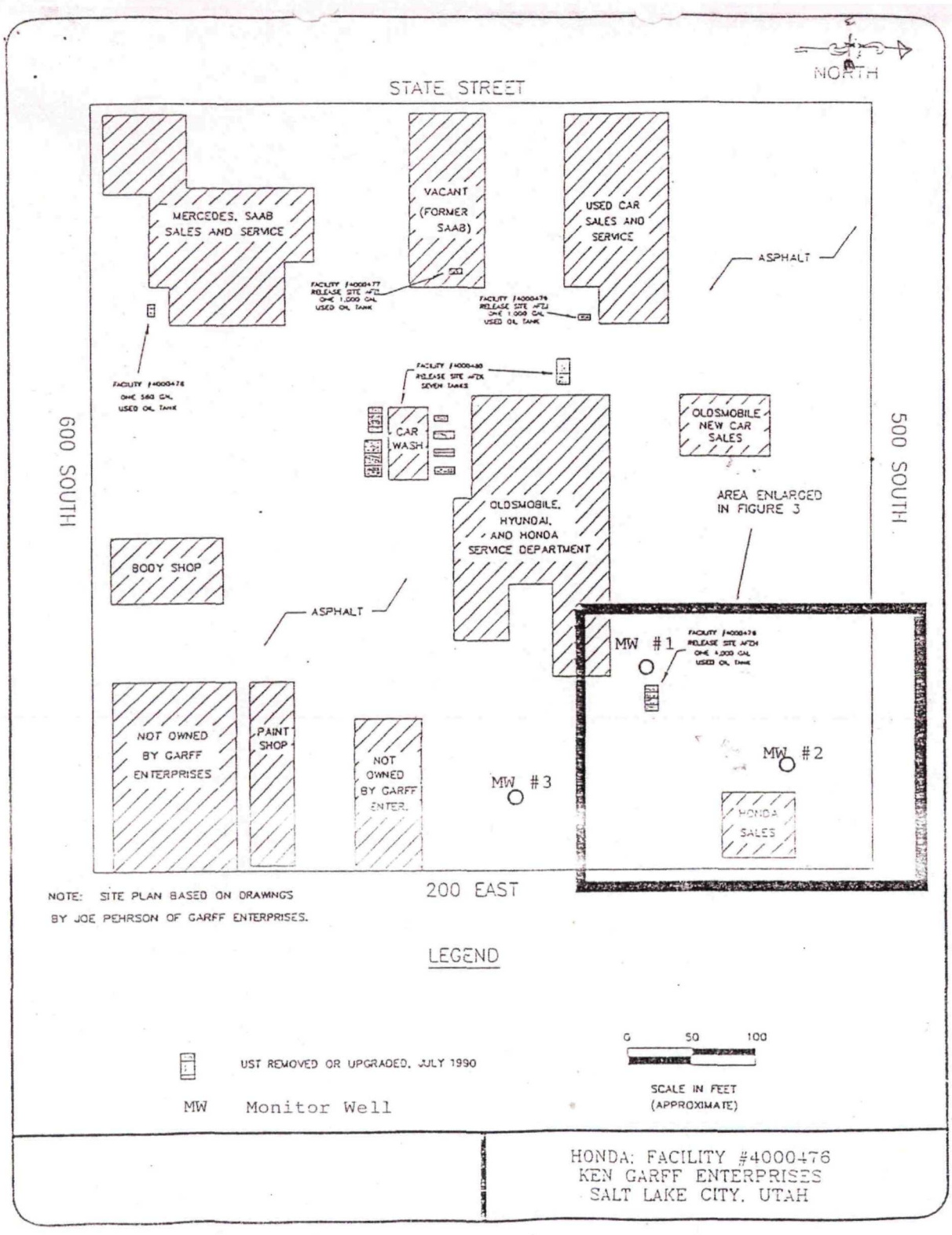
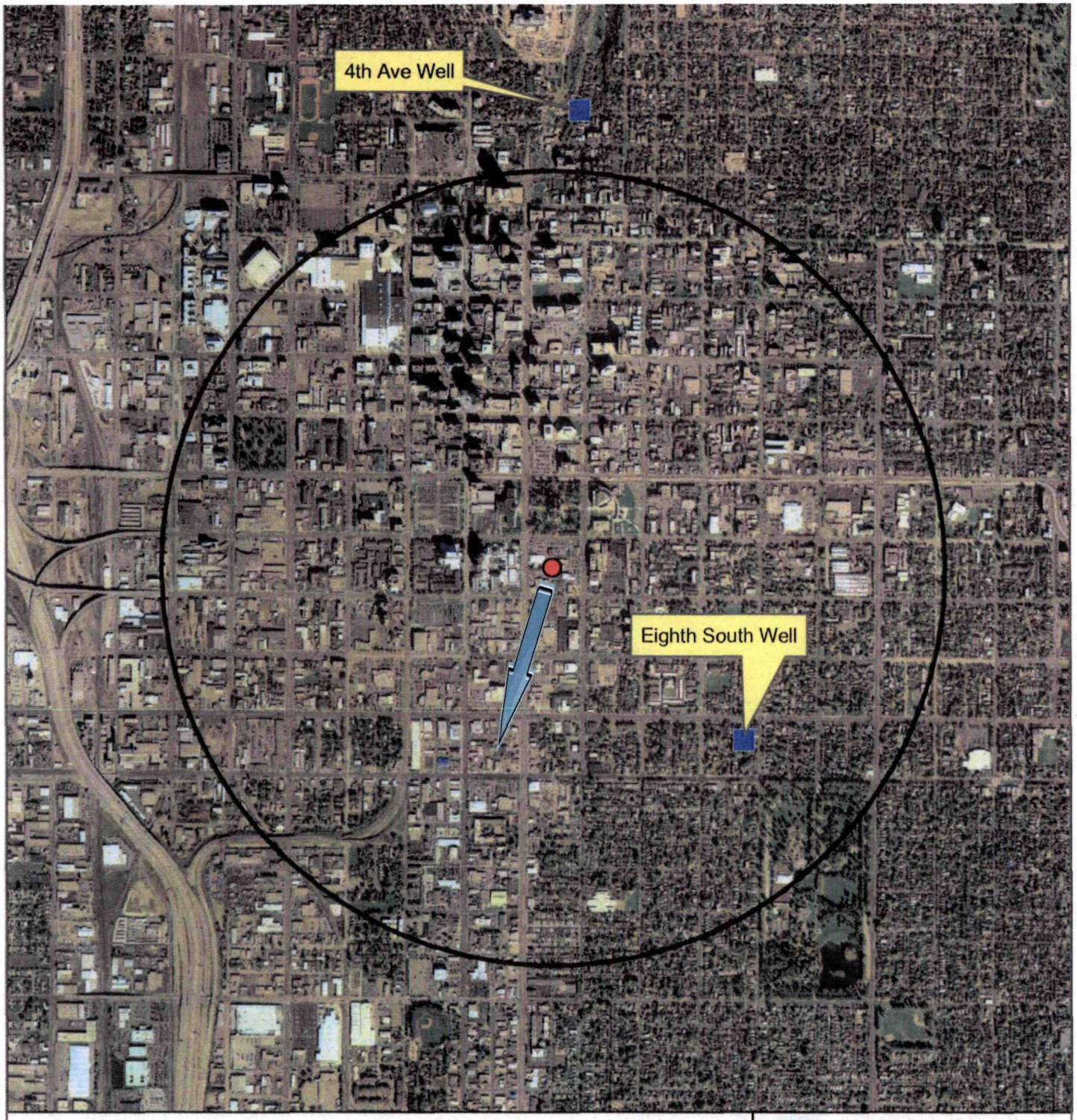


Figure 4: Historic Site Plan: Block 35 Methylene Chloride Plume Site , Salt Lake City, Utah



0 0.25 0.5 1 1.5 Miles

Legend

- Block 35 Methylene Chloride Plume site
- Municipal Wells
- One mile buffer around site
- Suspected flow of ground water

Aerial photograph obtained from the State of Utah GIS database, 2006

N W E S

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Figure 5
Municipal Wells

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

Tables

Table 1: Water Systems Served by Wells Within Four Miles of the Block 35 Methylene Chloride Plume Site

Water System Name	Activity	Population Served
Granger-Hunter Improvement District	Active	13,250
Salt Lake City Water System	Active	36,000
South Salt Lake City	Active	18,000
Eighth South Well	Active	50
Wimmer Systems	Active	50
Milstream Trailer Court	Active	150
University of Utah	Active	18,000
Population Served by Water Systems		**85,500**

Table 2: Population Within Four Miles of the Block 35 Methylene Chloride Plume

Distance From Site	Population Within Band	Cumulative Population
0.25 Miles	700	700
0.5 Mile	2866	3566
1 Miles	14,005	17,571
2 Miles	54,573	72,144
3 Miles	58,089	130,233
4 Miles	50,406	180,639
Total Population within Four Miles of Site		**180,639**

Appendices

Appendix A

Preliminary Assessment Worksheet

PRELIMINARY ASSESSMENT WORKSHEET

PREPARER'S NAME: Kim Viehweg
SITE NAME: Block 35 Methylene Chloride Plume

DATE: August 19, 2008

MAJOR CONSIDERATIONS

A) DOES ANY QUALITATIVE OR QUANTITATIVE INFORMATION EXIST THAT MAY INDICATE AN OBSERVED RELEASE TO AIR, GROUNDWATER, SOIL OR SURFACE WATER? ☒ YES ☐ NO

Describe: A methylene chloride groundwater plume was discovered as part of a leaking underground storage tank closure project at Garff Enterprises, Inc.

B) IF THE ANSWER TO #1 IS YES, IS THERE EVIDENCE OF DRINKING WATER SUPPLY CONTAMINATION OR ANY OTHER TARGET CONTAMINATION (i.e. food chain, recreation areas, or sensitive environments)? ☐ YES ☒ NO

Describe: _____

C) ARE THERE SENSITIVE ENVIRONMENTS WITHIN A 4-MILE RADIUS OR 15 DOWNSTREAM MILES OF THE SITE? ☒ YES ☐ NO IF YES, DESCRIBE IF ANY OF THE FOLLOWING APPLY:

1) Multiple sensitive environments? Within two miles down gradient and to the west is the Jordan River with an estimated 200 acres of wetlands and a habitat for extensive fish and wildlife populations including endangered species. There are also 14 active water wells within four miles of the Site serving a population of approximately 85,500 persons.

2) Federally designated sensitive environment(s)? Wetlands.

3) Sensitive environment(s) downstream on a small or slow flowing surface water body? No.

D) IS THE SITE LOCATED IN AN AREA OF KARST TERRAIN? ☐ YES ☒ NO

Describe: _____

E) DOES THE WASTE SOURCE LIE FULLY OR PARTIALLY WITHIN A WELLHEAD PROTECTION AREA AS DESIGNATED ACCORDING TO SECTION 1428 OF THE SAFE DRINKING WATER ACT? ☐ YES ☒ NO

Describe: _____

F) DOES ANY QUALITATIVE OR QUANTITATIVE INFORMATION EXIST THAT PEOPLE LIVE OR ATTEND SCHOOL ON ONSITE CONTAMINATED PROPERTY? ☐ YES ☒ NO

Describe: _____

SITE INFORMATION

1. SITE NAME: Block 35 Methylene Chloride Plume

   ADDRESS: 531 South State

   CITY: Salt Lake City COUNTY: Salt Lake STATE: UT

   ZIP: 84111 EPA ID: UTN000802657 LATITUDE: 40 45' 27" LONGITUDE: 111 53' 13"

2. DIRECTIONS TO SITE (From nearest public road): From the DERR offices, travel east on North Temple, turn south on 900 West, turn east on 400 South, then turn south on State Street. The northwest corner of Block 35 is at 500 S. State Street. The total estimated distance is 4.17 miles.

3. SITE OWNERSHIP HISTORY (Use additional sheets, if necessary):

   A. Name of current owner: Garff Family, LLC

      Address: Corporate Office: 405 S. Main

      City: Salt Lake City County: Salt Lake

      State: UT Zip: 84111 Dates: From _____ To _____

      Phone: (801) 257-3400

   B. Name of previous owner: _____

      Address: _____

      City: _____ County: _____

      State: UT Zip: _____ Dates: From _____ To _____

      Phone: _____

   C. Name of previous owner: _____

      Address: _____

      City: _____ County: _____

      State: UT Zip: _____ Dates: From _____ To _____

      Phone: _____

   D. Name of previous owner: _____

      Address: _____

      City: _____ County: _____

      State: UT Zip: _____ Dates: From _____ To_____

      Phone: _____

   Source of ownership data: _____

4. TYPE OF OWNERSHIP (Check all that apply):

   ☐ Private ☐ State ☐ Municipal ☐ Federal ☐ County

☒ Other (describe): Corporation

5. NAME OF SITE OPERATOR: _____

Address: _____

City: _____ County: _____

State: UT Zip: _____ Dates: From _____ To_____

Phone: _____

BACKGROUND/OPERATING HISTORY

6. DESCRIBE OPERATING HISTORY OF SITE: Several waste oil tanks were removed from the Site in 1990. Monitoring conducted in connection with the site closure identified a release of gasoline and used oil from a 4000 gallon used oil tank located in the northeast corner of Block 35 adjacent to the historic Honda Sales building. In 1997 and 2000, DERR requested additional monitoring for chlorinated solvents from this location before final site closure could be authorized. Groundwater sample results from April 2000 showed a concentration of 78.6 micrograms/liter of methylene chloride. The drinking water standard for methylene chloride is 5 micrograms/liter.

   Source of information: UDEQ/DERR 2000

7. DESCRIBE THE NATURE OF SITE OPERATIONS (property size, manufacturing, waste disposal, storage, etc.): The property size is one city block. There are several auto-related businesses located on this block. These businesses are Ken Garff Mercedes, Jaguar, Volvo, Mitsubishi, Hyundai, and Saab. Each of these businesses have service centers. Historically, Garff also had an Oldsmobile Paint Shop located at 566 South 200 East.

   Source of information: UDEQ/DERR 2008a, UDEQ/DSHW 2007

8. DESCRIBE ANY EMERGENCY OR REMEDIAL ACTIONS THAT HAVE OCCURRED AT THE SITE: There are five closed LUST sites associated with and located within Block 35. The DERR file numbers that have been assigned to these sites are: Ken Garff Honda site #4000476, Ken Garff Saab site #4000477, Ken Garff Imports site #4000478, Ken Garff Hyundai site #4000479, and Ken Garff Oldsmobile site #4000480. In addition, there are three CERCLIS sites within one mile of the Site; one of these sites is within 0.5 miles of the Site. The Employment Security Administration Excavation site (#UTD988070496) is 0.45 miles north of the Site, the Old Salt Lake City Fire Station (#UTD988066155) is 0.71 miles southwest from the Site, and the 200 South 300 West Plume (#UT0008969562) is 0.85 miles northwest of the Site.

   Source of information: UDEQ/DERR 2008b, UDEQ/DERR 2000c

9. ARE THERE RECORDS OR KNOWLEDGE OF ACCIDENTS OR SPILLS INVOLVING SITE WASTES?
   ☐ YES ☒ NO

   Describe: _____

   Source of information: _____

10. DISCUSS EXISTING SAMPLING DATA AND BRIEFLY SUMMARIZE DATA QUALITY (e.g., sample objective, age/comparability, analytical methods, detections limits and QA/QC): Groundwater sampling from MW-1 was performed on March 16, 1999 in connection with site closure. Analytical laboratory results for chlorinated solvents identified a concentration of 78.6 µg/L of methylene chloride. The maximum contaminant level for methylene chloride is 5 µg/L.

    Source of information: UDEQ/DERR 2000

WASTE CONTAINMENT/HAZARDOUS SUBSTANCE IDENTIFICATION

11. FOR EACH SOURCE AT THE SITE, SUMMARIZE ON TABLE 1 (attached): 1) Methods of hazardous substance disposal, storage or handling; 2) size/volume/area of all features/ structures that might contain hazardous waste; 3) condition/integrity of each storage disposal feature or structure; 4) types of hazardous substances handled.

12. BRIEFLY EXPLAIN HOW WASTE QUANTITY WAS ESTIMATED (e.g., historical records or manifests, permit applications, air photo measurements, etc.): Unknown.

    Source of information: _____

13. DESCRIBE ANY RESTRICTIONS OR BARRIERS ON ACCESSIBILITY TO ONSITE WASTE MATERIALS: The Site is located on a city block in downtown Salt Lake City. It is zoned Downtown Support District by Salt Lake City. There are several auto dealerships and auto service centers located on Block 35. The Site is open to the public and there is good accessibility.

    Source of Information: UDEQ/DERR 2008a

GROUND WATER CHARACTERISTICS

14. IS THERE ANY POSITIVE OR CIRCUMSTANTIAL EVIDENCE OF A RELEASE TO GROUND WATER?
☒ YES ☐ NO

Describe: Three monitoring wells were installed to monitor the groundwater in connection with UST excavation and site closure. Laboratory analysis for chlorinated solvents revealed elevated concentrations of methylene chloride at 78.6 micrograms/liter. The drinking water standard for methylene chloride is 5 micrograms/liter.

Source of information: UDEQ/DERR 2000

15. ON TABLE 2 (attached), GIVE NAMES, DESCRIPTIONS, AND CHARACTERISTICS OR GEOLOGIC/ HYDROGEOLOGIC UNITS UNDERLYING THE SITE.

16. NET PRECIPITATION: 15.31 inches

Source of information: Brough 1983

SURFACE WATER CHARACTERISTICS

17. ARE THERE SURFACE WATER BODIES WITHIN 2 MILES OF THE SITE?

☐ Ditches ☐ Lakes ☐ Pond ☒ Creeks ☒ Rivers

☒ Other (Describe) Liberty Park pond

18. DISCUSS THE PROBABLE SURFACE RUNOFF PATTERNS FROM THE SITE TO SURFACE WATERS: The terrain at the site is relatively flat with a slight southwest slope. The Jordan River is approximately 1.9 miles down gradient and west of the Site. Any runoff would likely be collected by the city's storm drain system and discharged into the Jordan River.

19. PROVIDE A SIMPLIFIED SKETCH OF SURFACE RUNOFF AND SURFACE WATER FLOW SYSTEM FOR 15 DOWNSTREAM MILES (see item #35).

20. IS THERE ANY POSITIVE OR CIRCUMSTANTIAL EVIDENCE OF SURFACE WATER CONTAMINATION?
☐ YES ☒ NO

Describe: _____

Source of information: _____

21. ESTIMATE THE SIZE OF THE UPGRADIENT DRAINAGE AREA FROM THE SITE: _____ acres

Source of information: This is difficult to estimate. The drainage area upgradient from the site is probably several dozen acres.

22. DETERMINE THE AVERAGE ANNUAL STREAM FLOW OF DOWNSTREAM SURFACE WATERS

Water Body: Jordan River Flow: 250 cfs

Water Body: _____ Flow: _____ cfs

23. IS THE SITE OR PORTIONS THEREOF LOCATED IN SURFACE WATER? ☐ YES ☒ NO

24. IS THE SITE LOCATED IN A FLOODPLAIN ☐ YES ☒ NO (indicate flood frequency)? The Site is listed as Zone X on FEMA flood maps and considered to be outside of the 500 year flood plain

25. IDENTIFY AND LOCATE (see item #35) ANY SURFACE WATER RECREATION AREA WITHIN 15 DOWNSTREAM MILES OF THE SITE:

26. TWO YEAR 24-HOUR RAINFALL: 2.28 inches

Source of information: Ashcroft, et al, 1992

TARGETS

27. DISCUSS GROUND WATER USAGE WITHIN FOUR MILES OF THE SITE: There are 23 water wells identified in the Utah Department of Environmental Quality/Division of Drinking Water (UDEQ/DDW) database within four miles of the Site. Of these 14 are active and nine are inactive. The wells serve seven public supply systems with a combined population of approximately 85,500. The municipal well closest to the Site, called Eighth South Well, is a noncommunity-nontransient water system. It is located approximately 0.65 miles southeast of the Site and serves a population of approximately 50.

Data provided by the Utah Department of Natural Resources/Division of Water Rights (UDNR) indicates that there are existing rights to 4,145 Points of Diversion (PODs). Of the 4,145 PODs, 318 were listed as surface PODs and 3,743 as underground. The uses listed for the 3,743 underground PODs include domestic, municipal, irrigation, power, stock watering, and "other". No contact was made with the owners of these underground PODs. Little is known regarding the current activity of these PODs or whether they are using the water for drinking water purposes.

Source of information: UDEQ/DDW 2008 and UDNR 2008

28. SUMMARIZE THE POPULATION SERVED BY GROUND WATER ON THE TABLE BELOW:

DISTANCE (miles)	POPULATION	CUMULATIVE POPULATION
0 - ¼	0	0
¼ - ½	0	0
½ - 1	50	50
1 - 2	30000	30050
2 - 3	18000	48050
3 - 4	37450	85500

Source of information: UDNR 2008

29. IDENTIFY AND LOCATE (see item #35) POPULATION SERVED BY SURFACE WATER INTAKES WITHIN 15 DOWNSTREAM MILES OF THE SITE: _____

Source of information: UDNR 2008

30. DESCRIBE AND LOCATE FISHERIES WITHIN 15 DOWNSTREAM MILES OF THE SITE (i.e., provide standing crop of production and acreage, etc.): From North Temple Street in Salt Lake City to the confluence with Little Cottonwood Creek, the use classification designated by Salt Lake County is 2B (protected for secondary contact recreation such as boating, wading, or similar uses), 3B (protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain), and 4 (protected for agricultural uses including irrigation of crops and stock watering).

Source of information: SLC 2008

31. DETERMINE THE DISTANCE FROM THE SITE TO THE NEAREST OF EACH OF THE FOLLOWING LAND USES

Description	Distance (Miles)
Commercial/Industrial/Institutional	0
Single Family Residential	0
Multi-Family Residential	0
Park	1
Agricultural	4

Source of information: USGS 1999

32. SUMMARIZE THE POPULATION WITHIN A FOUR-MILE RADIUS OF THE SITE:

DISTANCE (miles)	POPULATION	CUMULATIVE POPULATION

0 - ¼	700	700
¼ - ½	2866	3566
½ - 1	14005	17571
1 - 2	54573	72144
2 - 3	58089	130233
3 - 4	50406	180639

Source of information: UDEQ/DERR 2008d

OTHER REGULATORY INVOLVEMENT

33. DISCUSS ANY PERMITS:

County: _____

State: _____

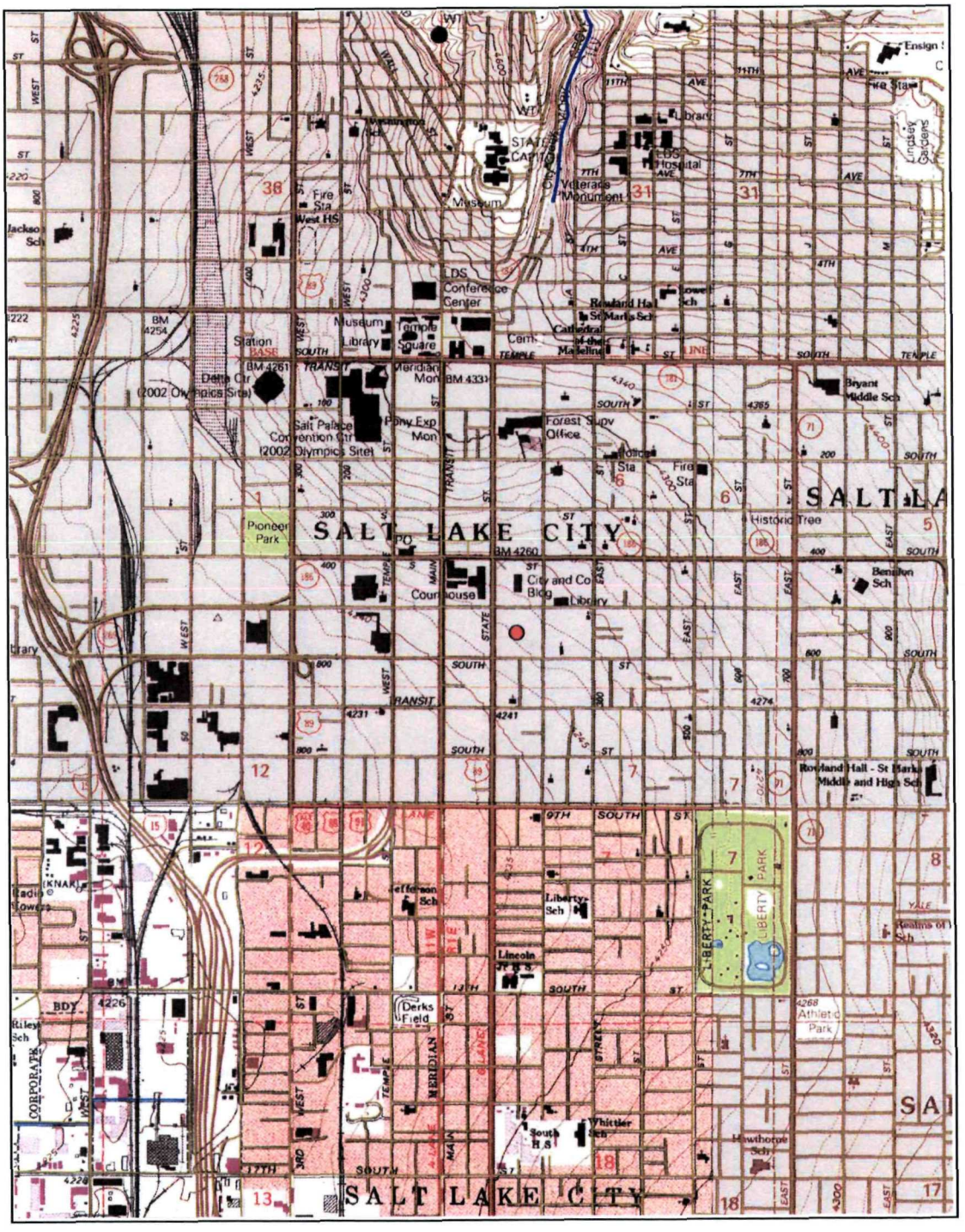
Federal: _____

Other: _____

Source of information: _____

34. SKETCH OF SITE

Include all pertinent features, e.g., wells, storage areas, underground storage tanks, waste areas, buildings, access roads, areas of ponded water, etc. Attach additional sheets with sketches of enlarged areas, if necessary.



35. SURFACE WATER FEATURES

Provide a simplified sketch of the surface runoff and surface water flow system for 15 downstream miles. Include all pertinent features, e.g., intakes, recreation areas, fisheries, gauging stations, etc.

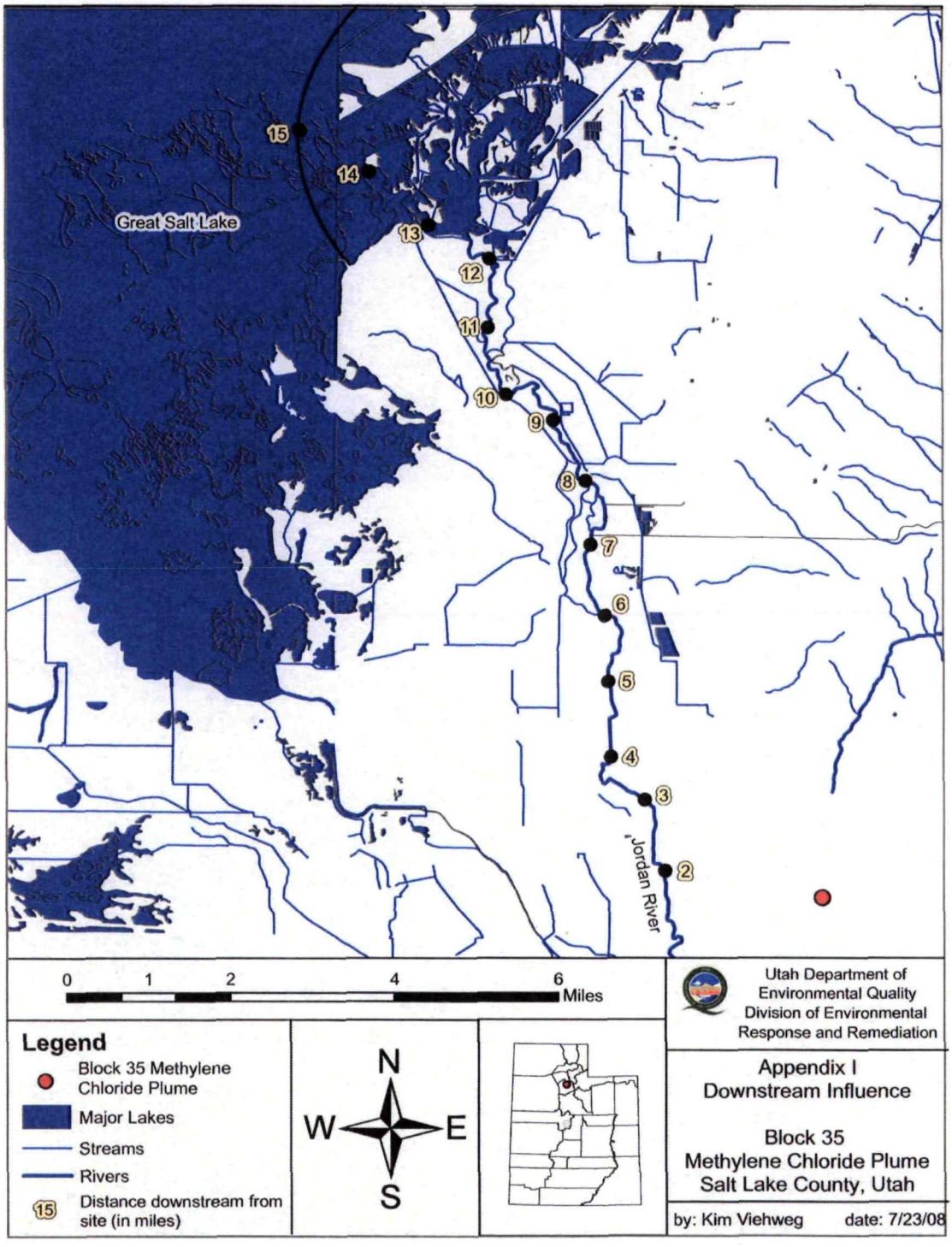


TABLE 1

WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION *

SOURCE TYPE	SIZE (volume/Area)	ESTIMATED WASTE QUANTITY	SPECIFIC COMPOUNDS	CONTAINMENT	SOURCE OF INFORMATION
Industrial solvents	Estimated area: Approximately 75 acres	Unknown	Methylene Chloride	Not contained	UDEQ/DERR 2000
Paint strippers					
Aerosols					
Pesticide products					
Used in the manufacture of photographic film					

*Use additional sheets if necessary.

** Evaluate containment of each source from the perspective of each migration pathway (e.g., ground water pathway - non-existent, natural or synthetic liner, corroding underground storage tank; surface water - inadequate freeboard, corroding bulk tanks; air - unstable slag piles, leaking drums, etc.)

TABLE 2

HYDROGEOLOGIC INFORMATION *

STRATA NAME/DESCRIPTION	THICKNESS (ft)	HYDRAULIC CONDUCTIVITY (cm/sec)	TYPE OF DISCONTINUITY**	SOURCE OF INFORMATION
Clayey silt	8-10 feet		Jordan River	UDEQ/DERR 2000
Silty sand	8-10 feet			
Elastic silt	8-10 feet			
Clays with thinly interbedded sand was found at the northeast corner of Block 35	8-10 feet			

*Use additional sheets if necessary.

** Identify the type of discontinuity within four-miles from the site (e.g., river, strata "pinches out", etc.)

REFERENCES

Ashcroft, G.L., D.T. Jensen, and J.L. Brown; 1992, Utah Climate, Utah Climate Center, Utah State University, Logan, Utah, U.S. Bureau of Reclamation, Utah Extension Service, and Utah Agricultural Experiment Station.

Brough, R. Clayton, Rodney L. Griffin, and E. Arlo Richardson; 1983, Utah Weather Guide, Society for Applied Climatology, West Jordan, Utah and Department of Geography, Brigham Young University, Provo, Utah.

SLC (Salt Lake County); 2008, Water Resources Planning and Restoration Beneficial Use Classifications, SLCO web site: www.waterresources.slco.org/html/waterQuality/wqBeneficial.html

UDEQ/DDW (Utah Department of Environmental Quality/Division of Drinking Water); 2008, Drinking Water Sources Data (from a GIS database), August.

UDEQ/DERR (Utah Department of Environmental Quality/Division of Environmental Response and Remediation); 2000, LUST Site Closure File, Ken Garff Honda, Salt Lake County, Utah (ID# 4000476).

UDEQ/DERR (Utah Department of Environmental Quality/Division of Environmental Response and Remediation); 2008a, Site Visit Report for Block 35 Methylene Chloride Plume, August 2, 2008.

UDEQ/DERR (Utah Department of Environmental Quality/Division of Environmetnal Response and Remediation); 2008b, UST/LUST Branch, LUST database layer name: SGID.U100.LUST_Tanks.

UDEQ/DERR (Utah Department of Environmental Quality/Division of Environmetnal Response and Remediation); 2008c, CERCLIS database, Utah State Geographic Information Database (GIS) layer name: SGID.U100.StateCERCLIS.

UDEQ/DERR (Utah Department of Environmental Quality/Division of Environmental Response and Remediation); 2008d, Census 2000 data, layer name: pop_blkgrp.shp

UDEQ/DSHW (Utah Department of Environmental Quality/Division of Solid and Hazardous Waste); 2007, Resource Conservation and Recovery Act list of facilities generating hazardous waste, August.

UDNR (Utah Department of Natural Resources/Division of Water Rights); 2008, Water Rights Points of Diversion Data (from a GIS database), August

USGS (United States Geological Survey); 1999, Salt Lake City South, Utah 7.5 Minute Series (Topographic), Utah.

Appendix B

CERCLA Eligibility Questionnaire

CERCLA ELIGIBILITY QUESTIONNAIRE

SITE NAME: Block 35 Methylene Chloride Plume

CITY: Salt Lake City STATE: Utah

EPA ID NUMBER: UTN000802657

I. CERCLA ELIGIBILITY	Yes	No
Did the facility cease operation prior to November 19, 1980?	☐	☒

If answer YES, STOP, facility is probably a CERCLA site.

If answer is NO, Continue to Part II.

II. RCRA ELIGIBILITY	Yes	No
Did the Facility file a RCRA Part A application? If YES:	☐	☒
1. Does the facility currently have interim status?	☐	☐
2. Did the facility withdraw its Part A application?	☐	☐
3. Is the facility a known or possible protective filer? (Facility filed in error).	☐	☐
4. Type of facility:		
Generator ☐ Transporter ☐ Recycler ☐		
TSD (Treatment/Storage/Disposal) ☐		
Does the facility have a RCRA operating or post closure permit?	☐	☒
Is the facility a late (after 11/19/80) or non-filer that has been identified by the EPA or the State? (Facility did not know it file under RCRA).	☐	☒

If all answers to question in Part II are NO, STOP, the facility is a CERCLA eligible site.

If the answer to #2 or #3 is YES, STOP, the facility is a CERCLA eligible site.

If answer #2 and #3 are NO and any OTHER answer is YES, site is RCRA, continue to Part III.

III. RCRA SITES ELIGIBLE FOR NPL	Yes	No
Has the facility owner filed for bankruptcy under federal or state laws?	☐	☐
Has the facility lost RCRA authorization to operate or shown probable unwillingness to carry out corrective action?	☐	☐
Is the facility a TSD that converted to a generator, transporter or recycler facility after November 19, 1980?	☐	☐

IV. EXEMPTED SUBSTANCES		
Does the release involve hazardous substances other than petroleum?	☒	☐

The site may never reach the NPL. We need to be able to refer it to any other program in EPA or state agencies which may have jurisdiction, and thus be able to effect a cleanup. Responses should summarize available information pertaining to the question.

1) Is there an owner or operator? Yes. The Garff Family LLC is the recorded owner, however, the source of the plume has not yet been determined.

2) (NPDES-CWA) Is there a discharge water containing pollutants with surface water through a point source (pipe, ditch, channel, conduit, etc.)? No

3) (Sec. 404-CWA) Have fill or dredged material been deposited in a wetland or on the banks of a stream? Is there evidence of heavy equipment operating in ponds, streams or wetlands? No

4) (UIC-SDWA) Are fluids being disposed of to the subsurface through a well, cesspool, septic system, pit, etc.? No

5) (TSCA) Is it suspected that there are PCB's on the site which came from a source with greater than 50 ppm PCB's such as oil from electrical transformers or capacitors? No

6) (FIFRA) Is there a suspected release of pesticides from a pesticide storage site? Are there pesticide containers on site? No

7) (RCRA - Subtitle D) Is there an owner or operator who is obligated to manage solid waste storage or disposal units under State solid waste or groundwater protection regulations? No

8) (UST) Is it suspected that there is a leaking underground storage tank containing a product which is a hazardous substance or petroleum? No

Appendix C

Preliminary Assessment Form

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION	
	State:UT	CERCLIS Number: UTN000802657
	CERCLIS Discovery Date: 3/13/2006	

1. GENERAL SITE INFORMATION:

Name: Block 35 Methylene Chloride Plume	Street Address: 531 South State Street	
City: Salt Lake City	State: UT	Zip Code: 84111
County: Salt Lake	County Code:	Congressional District: UT2
Latitude: 40° 45' 27.00" Longitude: 111° 53' 13.00" Approximate Area of Site: 75 Acres _____ Square Feet	Status of Site: ☒ Active ☐ Inactive ☐ Not Specified ☐ Not Applicable	

2. OWNER/OPERATOR INFORMATION

Owner: Garff Family LLC		Operator:	
Street Address: 405 S. Main Street		Street Address:	
City: Salt Lake City		City:	
State: UT	Zip Code: 84111	State: UT	Zip Code: 84

Type of Ownership:

☐ Private ☐ State
☐ Municipal ☐ Indian
☐ County ☐ Not Specified
☐ Federal Agency _____
☒ Other Corporation

How Initially Identified:

☐ Citizen Complaint ☐ RCRA/CERCLA Notification
☐ PA Petition ☐ Not Specified
☒ State/Local Program ☐ Incidental
☐ Federal Program
☐ Other _____

3. SITE EVALUATOR INFORMATION

Name of Evaluator: Kim Viehweg	Agency/Organization: Utah DEQ/DERR	Date: 8/12/08
Street Address: 168 N. 1950 W.	City: Salt Lake City	State: UT
Name of EPA or State Agency Contact: Gwen Christiansen		Telephone: (303)312-6463
Address: 1595 Wynkoop Street 8EPR-B	City: Denver	State: CO

4. SITE DISPOSITION (for EPA use only)

Emergency Response/Removal Assessment Recommendation: ___ Yes ___ No Date: __/__/____	CERCLIS Recommendation: ___ Higher Priority SI ___ Lower Priority SI ___ NFRAP ___ RCRA ___ Other:_____	Signature: Name (typed): _____ Position: _____

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT FORM - PAGE 2 OF 2

CERCLIS NUMBER
UTN000802657

5. GENERAL SITE CHARACTERISTICS

Predominant Land Uses Within 1 Mile of Site:
- ☐ Industrial
- ☒ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ Other Federal Agency _____
- ☐ Other _____
- ☐ DOE
- ☐ DOI

Site Setting:
- ☒ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:
Beginning Year: _____
Ending Year: _____
Unknown: ☒

Type of Operations (check all that apply):
- ☐ Manufacturing
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals (e.g. Pesticides, fertilizers)
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Struct. Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-Metallic Metals
- ☐ Not Specified
- ☐ Other: _____
- ☒ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility
- ☐ RCRA or Disposal Facility
  - ☐ Large Quantity Gen.
  - ☐ Small Quantity Gen.
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non or Late Filer"

Waste Generated:
- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite
- ☒ Unknown

Waste Deposition Authorized By:
- ☐ Present Owner
- ☐ Former Owner
- ☐ Present and Former Owner
- ☐ Unauthorized
- ☒ Unknown

Waste Accessible to the Public:
- ☐ Yes
- ☒ No

Distance to Nearest Dwelling, School, or Workplace:
0 Feet

6. WASTE CHARACTERISTICS INFORMATION

SOURCE TYPE: (Check all that apply)	SOURCE WASTE: QUANTITY (include units)	TIER
☐ Landfill	_____	_____
☐ Surface Impoundment	_____	_____
☐ Drums	_____	_____
☐ Tanks and Non-Drum Containers	_____	_____
☐ Chemical Waste Pile	_____	_____
☐ Scrap Metal or Junk Pile	_____	_____
☐ Tailings Pile	_____	_____
☐ Trash Pile (Open Dump)	_____	_____
☐ Land Treatment	_____	_____
☒ Contaminated Ground-Water Plume (Unidentified Source)	_____	_____
☐ Contaminated Surface-Water Plume (Unidentified Source)	_____	_____
☐ Contaminated Soil	_____	_____
☐ Other _____	_____	_____
☐ No Source	_____	_____

* C = Constituent, W = Wastestream, V = Volume, A = Area

General Types of Waste (Check all that Apply):
- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☒ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Oily Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Construction/Demolition Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☒ Other: Methylene Chloride

Physical State of Waste as Deposited (Check all that Apply):
- ☐ Solid
- ☐ Gas
- ☒ Liquid
- ☐ Powder
- ☐ Sludge

Appendix D

Site Visit Report and Photographs

Site Visit Report
Block 35 Methylene Chloride Plume
Kim Viehweg

On August 7, 2008, the above listed DERR participant visited the location of Block 35 Methylene Chloride Plume Site (known as the "Site") to ascertain Site conditions and make observations. Several photographs of the Site and the surrounding area were taken during the Site visit and follow this narrative.

The Site is located in the vicinity of 531 South State Street between 500 and 600 South and between State Street and 200 East in Salt Lake City, Utah. The topography of the area is generally flat with a gentle slope to the southwest. The area is largely covered with structures and asphalt/concrete that include parking lots, sidewalks, driveways and streets. The Salt Lake City and County Buildings are one block north of Block 35 and a large green belt surrounds this area. In addition, there are thin strips of grassy landscaping along the perimeter of Block 35.

The Site encompasses one city block in the downtown Salt Lake City area and commercial businesses surround the Site. This area is zoned by Salt Lake City as Downtown Support District. Block 35 is comprised of several auto-related businesses. Most of these businesses are owned by Ken Garff Enterprises and include Ken Garff Mercedes, Jaguar, Volvo, Mitsubishi, Hyundai, and Saab. On the southeast corner of the block, there are two auto repair businesses not owned by Garff Enterprises called Safety Brakes and New Era Garage. These two businesses are currently not in business.

In the early 1980s, Honda Sales was located on the northeast corner of Block 35 where 500 South intersects with 200 East. Ken Garff Hyundai has since replaced the Honda Sales building and now occupies that site. In June of 1990, a 4000-gallon used oil tank was excavated from the ground approximately 75 feet southwest of the historic Honda Sales building. There were three monitoring wells installed to monitor the groundwater in connection with the UST excavation. Monitoring well #1 is west of this removed UST. A gasoline station with three USTs was located adjacent to the Honda Sales area and monitoring well #2 was installed close to this area. Monitoring well #3 is approximately 265 feet due south of monitoring well #2. During the Site visit, monitoring well #2 was located and photographed. There was an attempt to find monitoring wells #1 and #3 but they were not located.

The Site is easily accessible to the public. The nearest residence is about 0.25-mile east of the Site. In addition, there are three schools that are a mile or less south and down gradient from the Site. They are Jefferson School (0.8 miles south-southwest), Lincoln Junior High School (1.0 mile south), and Liberty School (0.8 south-southeast). The resident population within a one-mile radius is 17,571 increasing to 180,639 within a four-mile radius of the Site.

Photo 1: Southwest corner of Block 35.

Photo 2: Northwest corner of Block 35.

Photo 3: Southeast corner of Block 35.

Photo 4: Mid block north side of Block 35.

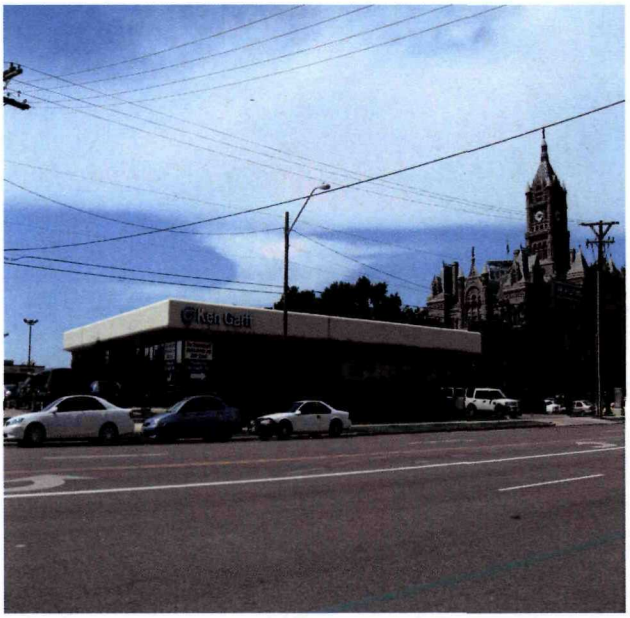


Photo 5: Northeast corner of Block 35.

Photo 6: Mid block east side of Block 35.

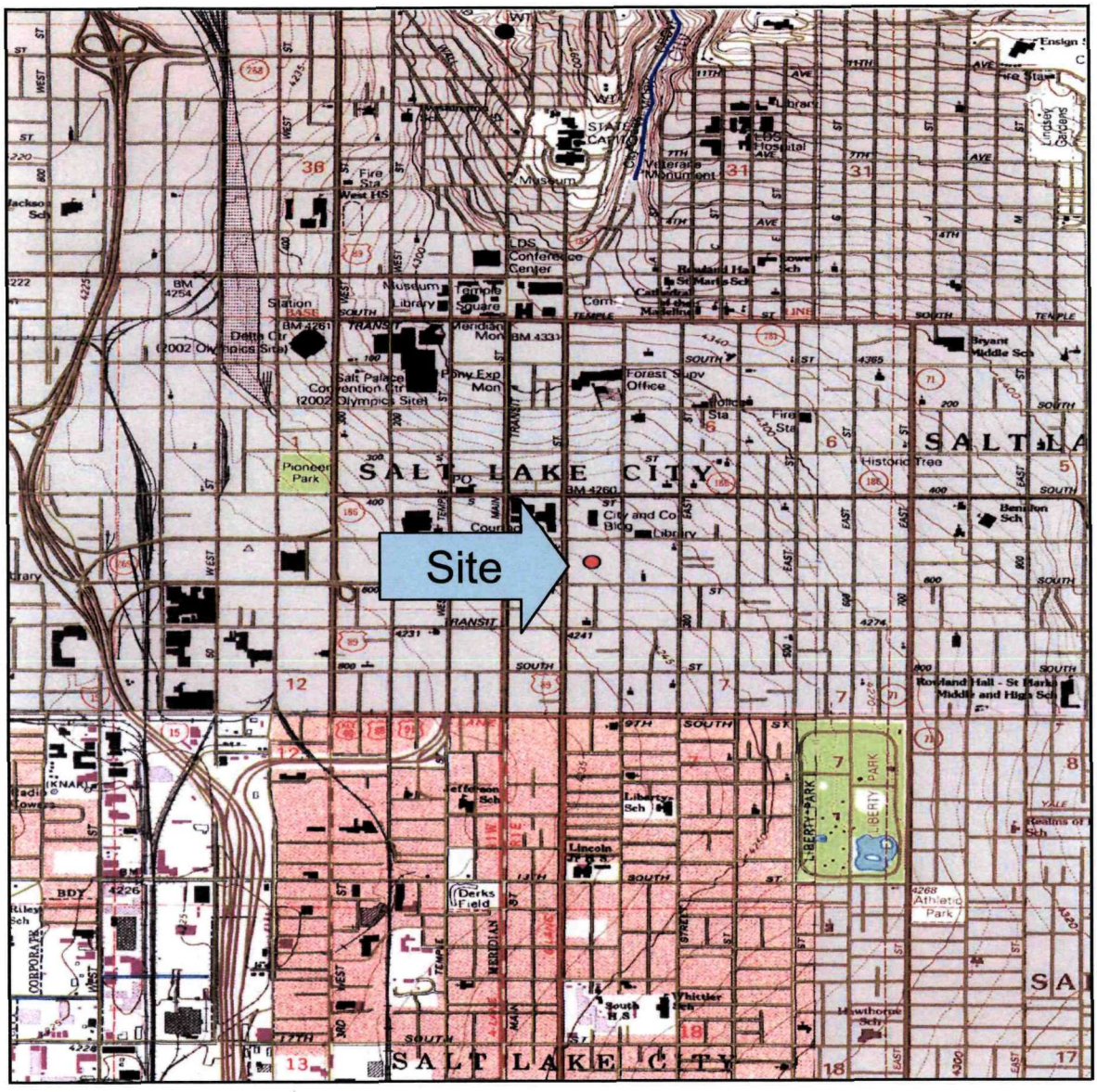
Photo 7: Monitoring well #2 is located just west of Ken Garff Hyundai.

Photo 8: Ken Garff Hyundai is located in the northeast corner of Block 35.

Appendix E

Latitude and Longitude Calculations

LATITUDE/LONGITUDE DOCUMENT RECORD FORM



SITE NAME: Block 35 Methylene Chloride Plume NUMBER: UTN 000802657
MAP NAME: Salt Lake City, Utah SCALE: 1:24,000
LATITUDE 40° 45' 27" North LONGITUDE 111° 53' 13" West
TOWNSHIP: 1 S N/S RANGE: 1 E E/W SECTION: 6 SW ¼ SW ¼ NE ¼
MAP DATUM: NAD83 UTM zone 12 MERIDIAN: Salt Lake
INVESTIGATOR: K. Viehweg DATE: July 31, 2008

Appendix F

Groundwater Laboratory Results

875 South Chestnut Street
P.O. Box 25005
Salt Lake City, UT 84125
(801) 973-8305
Fax: (801) 973-8333

Utility Testing Laboratory

January 18, 2000

Westech
3900 South 195 West
Salt Lake City, UT 84107

Attention: Mr. Jack Riding

Subject: EPA 601 Testing -Garff Enterprises PO No. 0150259
Sample Collected: 16 March 1999
Sample Received: 16 March 1999
Comments: Method 601 second column confirmation not confirmed.

PURGEABLE HALOCARBONS

METHOD 601 (WATER)
USING PURGE & TRAP METHOD 5030
PRACTICAL QUANTITATIVE LIMIT: 2 ppb WATER

Test No.	WATER SAMPLE	Test Results µg/Kg, µg/L (ppb)
03-16-99-29 B	MW-1	< 2.0 µg/L Chloromethane
		< 2.0 µg/L Bromomethane
Date Analyzed:		< 2.0 µg/L Dichlorodifluoromethane
26 Mar 1999		< 2.0 µg/L Vinyl chloride
		< 2.0 µg/L Chloroethane
		78.6 µg/L Methylene chloride **
		< 2.0 µg/L Trichlorofluoromethane
		< 2.0 µg/L 1,1-Dichloroethylene
		< 2.0 µg/L 1,1-Dichloroethane
		< 2.0 µg/L trans-1,2-dichloroethylene
		< 2.0 µg/L Chloroform
		< 2.0 µg/L 1,2-Dichloroethane
		< 2.0 µg/L 1,1,1-Trichloroethane
		< 2.0 µg/L Carbon Tetrachloride
		< 2.0 µg/L Bromodichloromethane
		< 2.0 µg/L 1,2-Dichloropropane
		< 2.0 µg/L cis-1,3-Dichloropropylene
		< 2.0 µg/L Trichloroethylene
		< 2.0 µg/L Dibromochloromethane
		< 2.0 µg/L 1,1,2-Trichloroethane
		< 2.0 µg/L trans-1,3-Dichloropropylene
		< 2.0 µg/L 2-Chloroethyl vinyl ether
		< 2.0 µg/L Bromoform
		< 2.0 µg/L 1,1,2,2-Tetrachloroethane
		< 2.0 µg/L Tetrachloroethylene
		< 2.0 µg/L Chlorobenzene
		< 2.0 µg/L 1,3-Dichlorobenzene
		< 2.0 µg/L 1,4-Dichlorobenzene
		< 2.0 µg/L 1,2-Dichlorobenzene
		< 2.0 µg/L cis-1,2-dichloroethylene

** Estimated value, analyte(s) exceeded calibration range

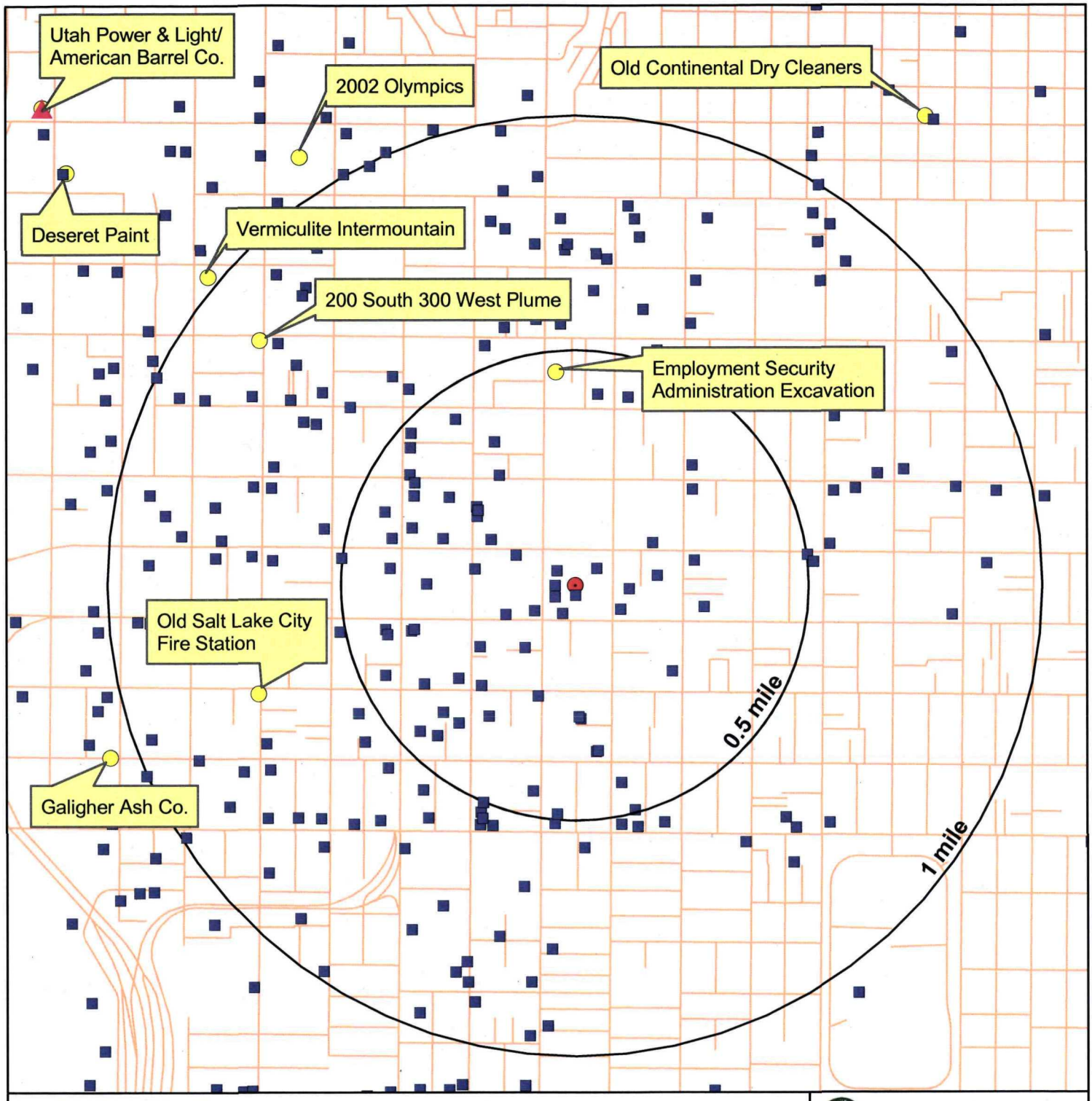
UTILITY TESTING LABORATORY

Tina May

Tina May
Quality Assurance Manager

Appendix G

CERCLIS/NPL/UST Sites



0 0.2 0.4 0.8 1.2 Miles

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume Site
- State CERCLIS Sites
- National Priority List Sites
- UST Sites
- Major Roads
- Distance Bands

N W E S

Appendix G
CERCLIS/NPL/UST Sites

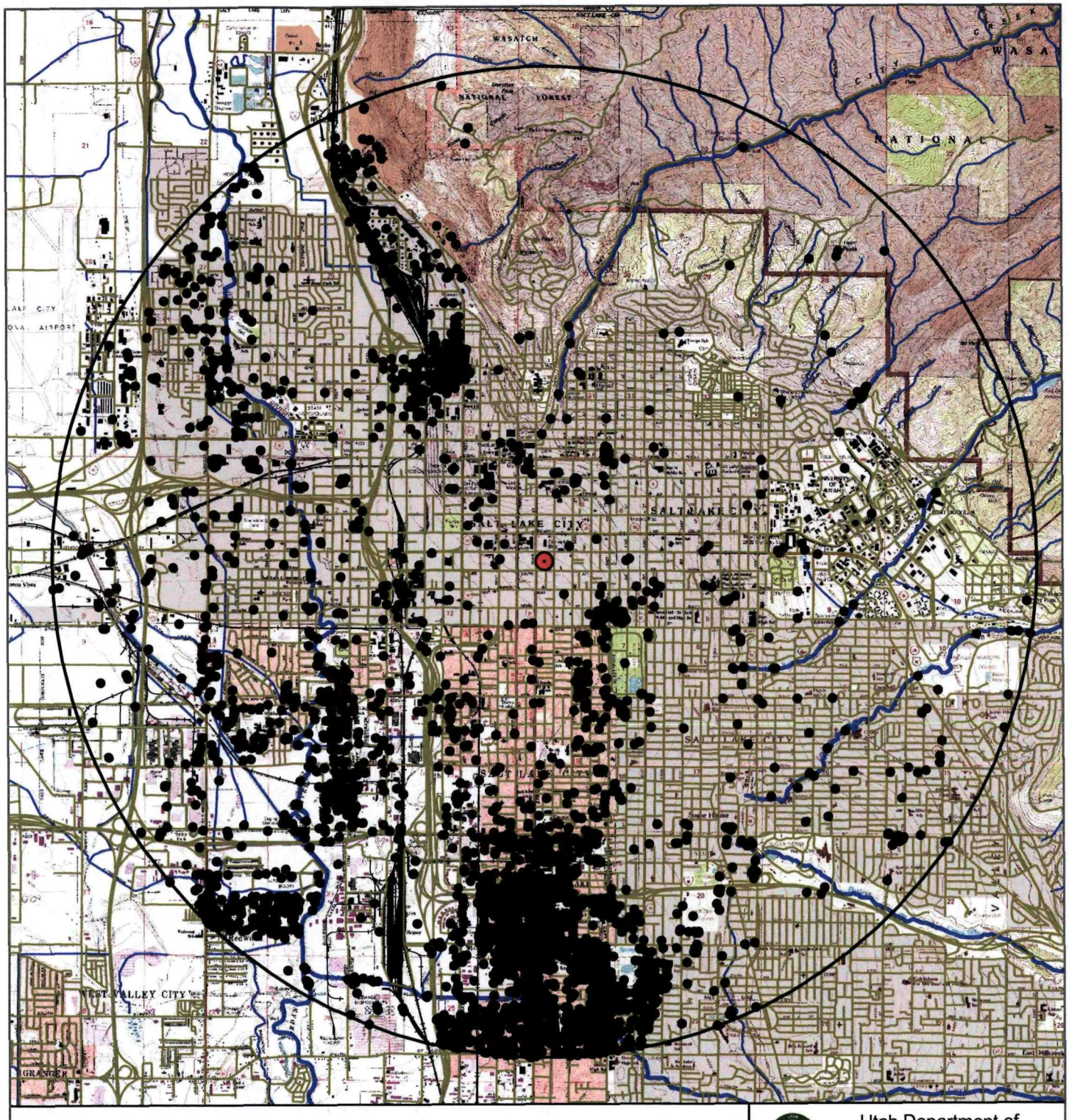
Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

Base Map: United States Geological Survey topographic map, 1999

Appendix H

Points of Diversion



0 0.5 1 2 3 4 5 Miles

Legend

- Block 35 Methylene Chloride Plume site
- Points of Diversion (PODs)
- Four-mile radius around site
- Major Roads
- Railroads
- Water Courses

Base Map: United States Geological Survey topographic map, 1999

N
W E
S

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

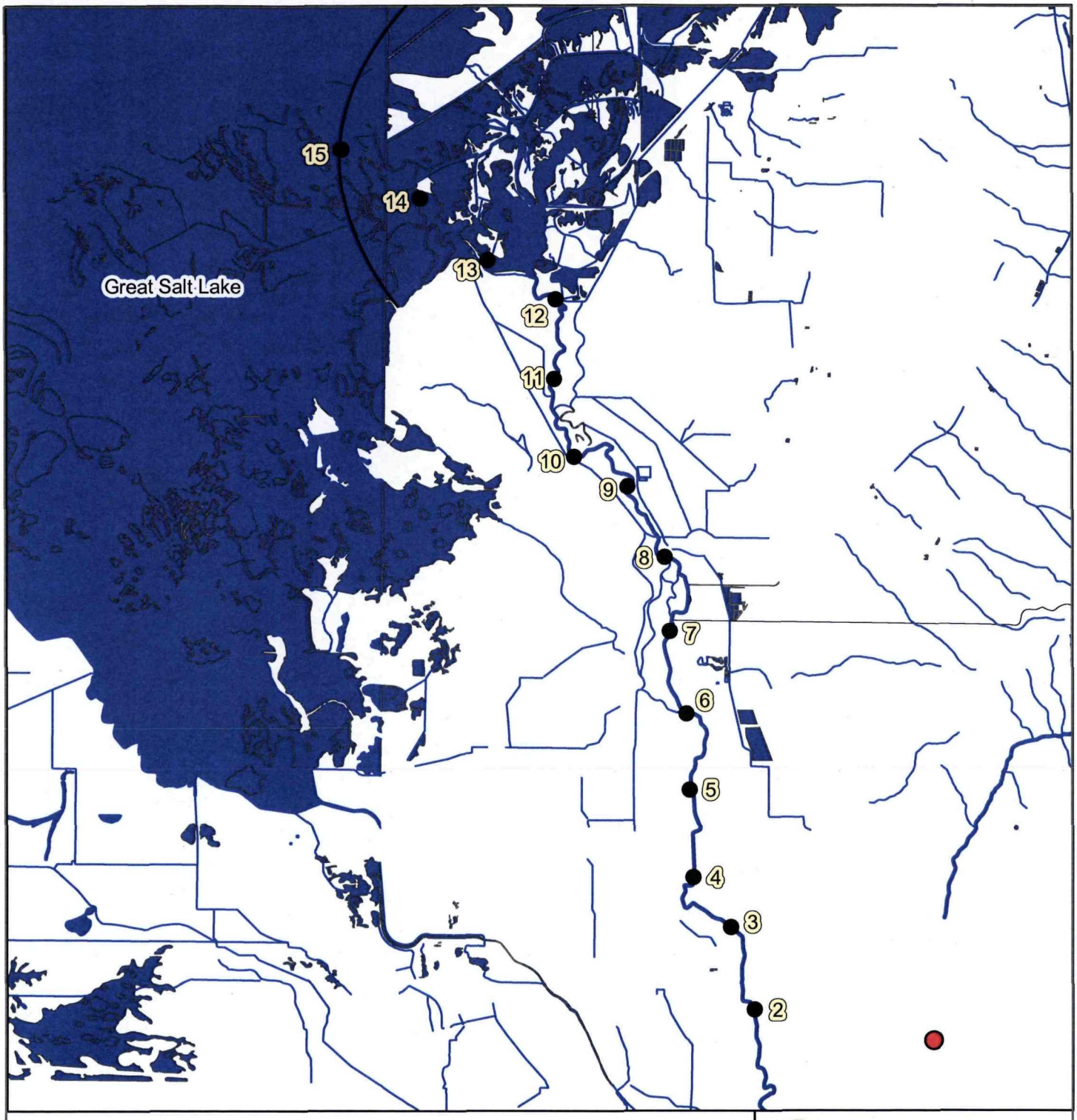
Appendix H
Points of Diversion (PODs)

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

Appendix I

Downstream Influence



0 1 2 4 6 Miles

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Legend

- Block 35 Methylene Chloride Plume
- Major Lakes
- Streams
- Rivers
- 15 Distance downstream from site (in miles)

Base Map: United States Geological Survey topographic map, 1999

N
W E
S

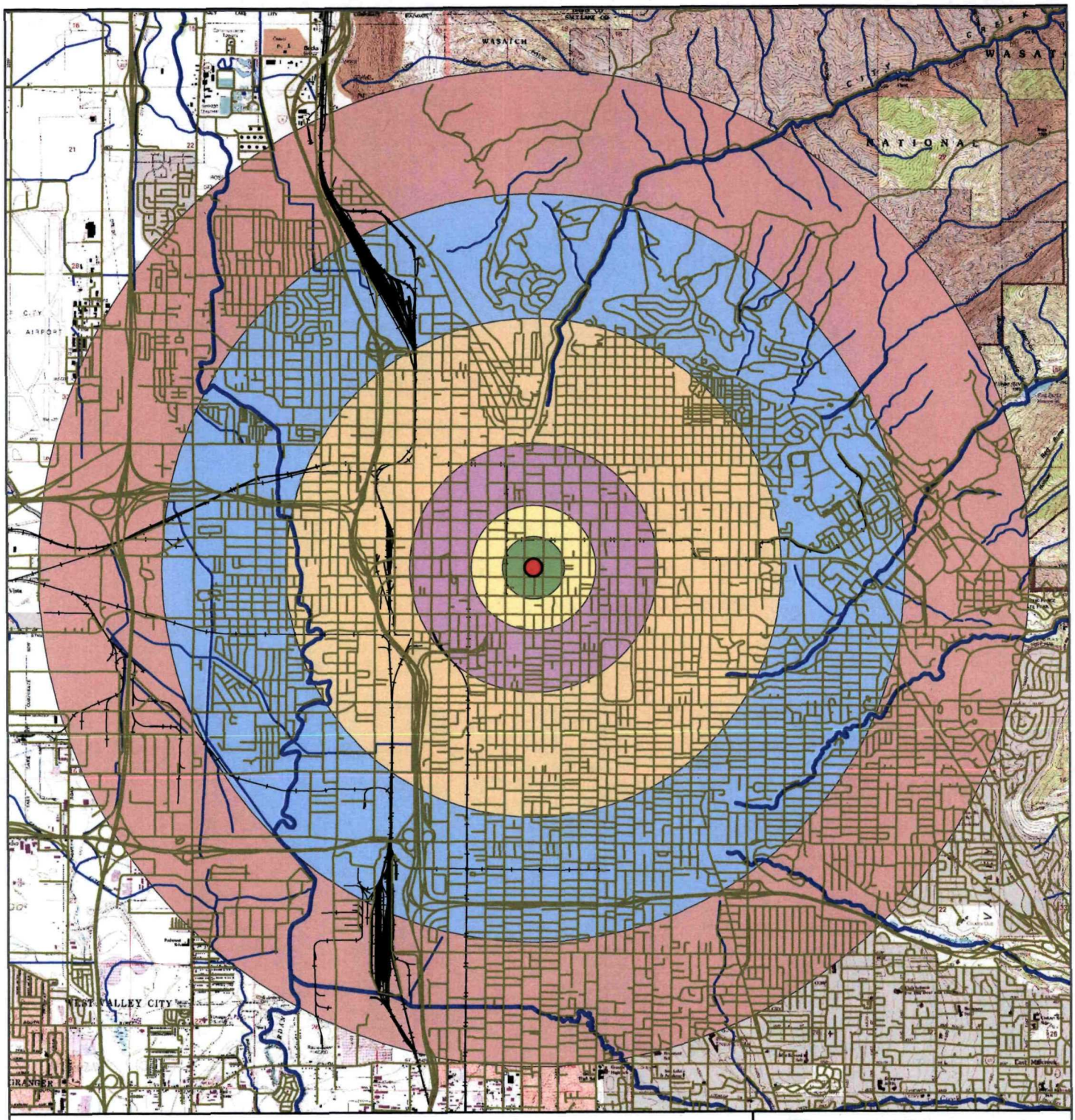
Appendix I
Downstream Influence

Block 35
Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

Appendix J

Population within a Four-Mile Radius



0 0.5 1 2 3 4 5 Miles

Legend

- Block 35 Methylene Chloride Plume site
- Population Bands
- Major Roads
- Railroads
- Water Courses

Base Map: United States Geological Survey topographic map, 1999

N W E S

Utah Department of Environmental Quality
Division of Environmental Response and Remediation

Appendix J
Population within a Four-Mile Radius
Block 35 Methylene Chloride Plume
Salt Lake County, Utah

by: Kim Viehweg date: 7/23/08

FID	Shape *	Band	Distance	B_Band	C_Band
0	Polygon	8	0-0 Miles	0	180638.87
1	Polygon	7	4-0 Miles	0	180638.87
2	Polygon	6	3-4 Miles	50406.31	180638.87
3	Polygon	5	2-3 Miles	58089	130232.56
4	Polygon	4	1-2 Miles	54572.6	72143.57
5	Polygon	3	0.5-1 Miles	14005.33	17570.97
6	Polygon	2	0.25-0.5 Miles	2865.78	3565.64
7	Polygon	1	0-0.25 Miles	699.85	699.85
8	Polygon	0	Site + 1/2m buffer	0	0